### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

# (19) World Intellectual Property Organization International Bureau



## 

(43) International Publication Date 10 February 2005 (10.02.2005)

**PCT** 

## (10) International Publication Number WO 2005/012037 A2

(51) International Patent Classification?:

B60Q 1/48

(21) International Application Number:

PCT/GB2004/003260

(22) International Filing Date:

28 July 2004 (28:07:2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0317644.3

28 July 2003 (28.07.2003) GB

(71) Applicant (for all designated States except US): AB AU-TOMOTIVE ELECTRONICS LTD. [GB/GB]; Forest Farm Industrial Estate, Whitchurch, Cardiff CF14 7YS (GB).

(72) Inventors; and

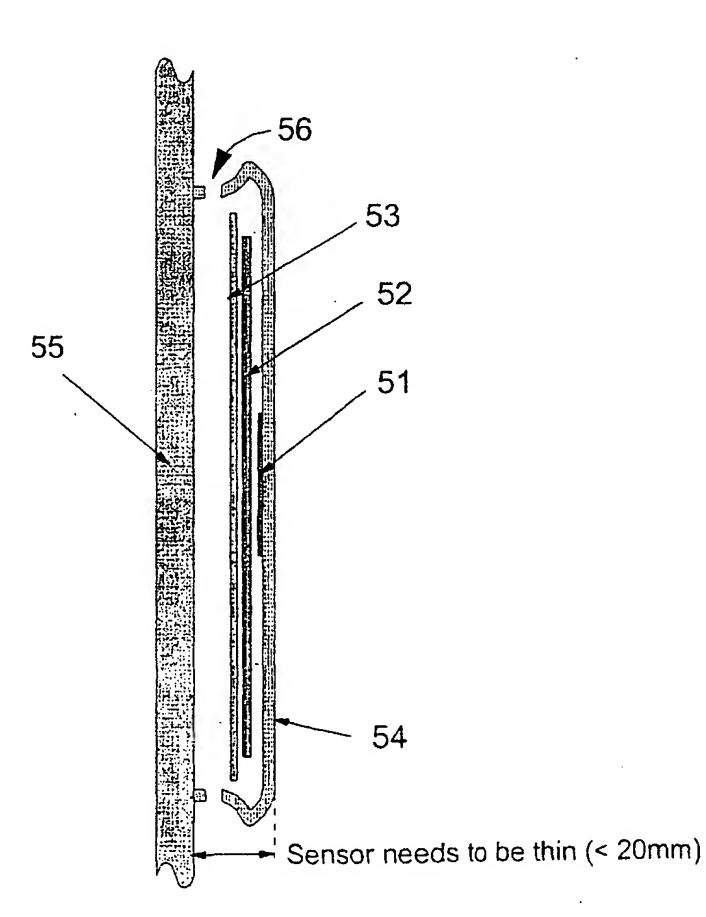
(75) Inventors/Applicants (for US only): MOON, Anthony

[GB/GB]; 1 Radyr Court Rise, Llandaff, Cardiff CF5 2QH (GB). SNELL, David [GB/GB]; 3 Barquentine Place, Atlantic Wharf, Cardiff CF10 4NH (GB).

- (74) Agent: MIDGLEY, Jonathan, Lee; Marks & Clerk, 57-60 Lincoln's Inn Fields, London WC2A 3LS (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: CAPACITIVE SENSOR



(57) Abstract: A capacitive sensor for mounting to a hody, particularly a body such as a van door. The sensor has a sensor plate to which a first signal is applied. A first guard plate is interposed between the sensor plate and the body, and a second guard plate is interposed between the first guard plate and the body. The first and second guard plates each have signals applied thereto which are the same or at least similar to the first signal applied to the sensor plate. In this way, the second guard plate acts as a rear guard to the first guard and reduces its capacitance to ground. This reduces the current drawn by the first guard, allowing it to more accurately track the signal on the sensor and consequently better mask the sensor plate from the body.



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, Cl, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.